

Huffine Lane Access Management Plan

Bozeman & Gallatin County, Montana

Montana Department of Transportation

STPP 50-2(46)82

August, 2007

Huffine Lane Access Management Plan

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SECTION 1 INTRODUCTION

Purpose and Need

The "Huffine Lane Access Management Plan" represents the long range vision for managing access to Huffine Lane (US 191/P-50) between Four Corners (Jackrabbit Lane) and College Street in Bozeman, MT. This vision is shared by the stakeholder agencies with an interest in Huffine Lane: the Montana Department of Transportation; the Federal Highway Administration; the City of Bozeman; and Gallatin County. Representatives from these agencies concur that:

- For the safety and welfare of the traveling public, Huffine Lane should be managed so that safety is the highest priority; and that
- To protect prior public expenditures of funds invested previously in Huffine Lane, Huffine Lane should be managed so that ease of east/west mobility by the traveling pubic through the corridor remains high long into the future.

To this end, the "Huffine Lane Access Management Plan" has been implemented.

The Purpose of the "Huffine Lane Access Management Plan" is to balance the competing needs for safety within the corridor, mobility through the corridor, and access to the corridor in the following priority order:

- 1. Safety
- 2. Mobility
- 3. Access

The Need for this plan results from Huffine Lane's (US 191 / P-50) context and use within the larger regional transportation network. This corridor serves as the primary gateway between the City and Yellowstone National Park further to the southwest, as well as providing local access between the Four Corners area and downtown Bozeman. Huffine Lane is a non-rural highway that provides access to a developing suburban area west of Bozeman, as well as serving as a regional highway providing access to Yellowstone Park and other destinations. As such, it is imperative that this highway maintain its capacity to move large volumes of traffic safely and efficiently. As a result, direct access to parcels of land abutting Huffine Lane is subordinate to providing service to through traffic in a safe and efficient manner.

Bozeman, MT and Gallatin County, MT are high growth areas within the state. Development along the corridor has increased, and is expected to in the future. Without a plan to actively manage access to Huffine Lane in light of these continuing growth pressures, there is a high likelihood that the safety and mobility within the corridor will decrease, possibly to unsafe or unacceptable levels.

It is the responsibility of the Montana Department of Transportation to manage Huffine Lane in a manner that preserves both the safety and the functional integrity of the highway. This segment of Huffine Lane has been designated a Controlled Access Highway. The "Huffine Lane Access Management Plan" further defines the specifics of access control on this facility, in an attempt to foster safe and efficient movement of persons and goods using the highway into the foreseeable future.

Principles of Good Access Management

Access management programs seek to limit and consolidate access along major roadways, while promoting a supporting street system and unified access and circulation systems for development. The result is a roadway that functions safely and efficiently for its useful life, and often results in a more attractive corridor. Principles of good access management can be found on the Transportation Research Board Access Management website (www.accessmanagement.gov/principlestxt.html). Good access management plans are accomplished by applying the following principles:

- 1. **Provide a Specialized Roadway System:** Different types of roadways serve different functions. It is important to design and manage roadways according to the primary functions that they are expected to serve.
- 2. Limit Direct Access to Major Roadways: Roadways that serve higher volumes of regional through traffic need more access control to preserve their traffic function. Frequent and direct property access is more compatible with the function of local and collector roadways.
- 3. **Promote Intersection Hierarchy:** An efficient transportation network provides appropriate transitions from one classification of roadway to another. For example, freeways connect to arterials through an interchange that is designed for the transition. Extending this concept to other roadways results in a series of intersection types that range from the junction of two major arterial roadways, to a residential driveway connecting to a local street.
- 4. Locate Signals to Favor Through Movements: Long, uniform spacing of intersections and signals on major roadways enhances the ability to coordinate signals and to ensure continuous movement of traffic at the desired speed. Failure to carefully locate access connections or median openings that later become signalized, can cause substantial increases in arterial travel times. In addition, poor signal placement may lead to delays that cannot be overcome by computerized signal timing systems.
- 5. Preserve the Functional Area of Intersections and Interchanges: The functional area of an intersection or interchange is the area that is critical to its safe and efficient operation. This is the area where motorists are responding to the intersection or interchange, decelerating, and maneuvering into the appropriate lane to stop or complete a turn. Access connections too close to intersections or interchange ramps can cause serious traffic conflicts that result in crashes and congestion. (The term "corner clearance" refers to the distance from an access to the adjacent intersection. Adequate corner clearance standards help prevent congestion, promote efficiency through an intersection, and minimize the frequency of crashes.)
- 6. Limit the Number of Conflict Points: Drivers make more mistakes and are more likely to have collisions when they are presented with the complex driving situations created by numerous conflict points. Conversely, simplifying the driving task contributes to improved traffic operations and fewer collisions. A less complex driving environment is accomplished by

- limiting the number and type of conflicts between vehicles, vehicles and pedestrians, and vehicles and bicyclists.
- 7. **Separate Conflict Areas:** Drivers need sufficient time to address one set of potential conflicts before facing another. The necessary spacing between conflict areas increases as travel speed increases, to provide drivers adequate perception and reaction time. Separating conflict areas helps to simplify the driving task and contributes to improved traffic operations and safety.
- 8. Remove Turning Vehicles from Through Traffic Lanes: Turning lanes allow drivers to decelerate gradually out of the through lane and wait in a protected area for an opportunity to complete a turn. This reduces the severity and duration of conflict between turning vehicles and through traffic and improves the safety and efficiency of roadway intersections.
- 9. Use Non-traversable Medians to Manage Left-Turn Movements: Medians channel turning movements on major roadways to controlled locations. Research has shown that the majority of access-related crashes involve left turns. Therefore, non-traversable medians and other techniques that minimize left turns or reduce the driver workload can be especially effective in improving roadway safety.
- 10. Provide a Supporting Street and Circulation System: Well-planned communities provide a supporting network of local and collector streets to accommodate development, as well as unified property access and circulation systems. Interconnected street and circulation systems support alternative modes of transportation and provide alternative routes for bicyclists, pedestrians, and drivers. Alternatively, commercial strip development with separate driveways for each business forces even short trips onto arterial roadways, thereby reducing safety and impeding mobility.

In order to promote the highest level of access and circulation to and from properties abutting Huffine Lane after all elements of the plan have been implemented, it is important that a supplemental system of north-south intersecting streets and east-west streets parallel to Huffine Lane be developed. Section 5 of this plan indicates a rough framework for a future street network north and south of Huffine Lane which, if implemented, will complement the access control strategies being contemplated for Huffine Lane. It is suggested that the details of this future street network be developed and integrated into the Greater Bozeman Area Transportation Plan.

Multi-Modal Considerations

Bicycle and Pedestrian Facilities Considered

The stakeholder agencies involved in this study recognize the need for Huffine Lane to accommodate bicyclists and pedestrians as well as powered vehicles.

Huffine Lane currently has an eight foot paved shoulder on each side of the roadway, which bicyclists can use. This eight foot shoulder width is maintained in the future configuration of Huffine Lane. Thus, the paved shoulder will

provide a continuous east-west bike facility along Huffine Lane upon full implementation of the plan.

The right-of-way width planned for Huffine Lane under this plan is sufficient to provide for sidewalks on both sides of the roadway. However, specific pedestrian facilities are determined as a site development detail during the site plan review and development approval process. Sidewalks will be constructed as properties adjacent to Huffine Lane develop or redevelop, and development regulations allow them to be required.

Bus Transit Considerations

The Streamline bus, which circulates between Belgrade and the City of Bozeman, travels Huffine Lane as part of its route. There are currently stops at several of the trailer parks and the Gallatin Valley Mall with the area of this Access Management Plan. Currently, all stops happen off the right-of-way of Huffine Lane. With the eight foot paved shoulders on Huffine, and adequate right-of-way in both the existing and future proposed conditions, there is ample room to develop future bus stops on Huffine Lane if desired. Nothing contemplated in this Access Management Plan precludes that possibility.